

14
A
DISSERTATION

ON THE
TEETH AND GUMS,

AND

The several Disorders to which they are liable;

WITH

Directions for keeping them in a sound State:

LIKEWISE,

Remarks on the injurious Effects of Scaling the Teeth;

TOGETHER WITH

Such salutary Rules for the Management of Children in
Dentition, as will render that Period less dangerous.

By W. BENNETT, Surgeon. K

L O N D O N;

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Transacted at the General Assembly of the Faculty of Physicians and Surgeons of the City of London, in the Year 1746.

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TOGETHER WITH

Some Observations on the Influence of Climate in the Production of these Disorders, and the best Methods of preventing them.

By W. BURNETT, Surgeon.



Printed for the Author, at the Sign of the Sun, in Pall-mall; and for J. DODD, at the Sign of the Anchor, in St. Dunstons Church-yard, 1746.

P R E F A C E.

IT should seem strange, that among all the Volumes written upon Physic, and the Cure of Diseases, so little has been said on the present Subject; for it cannot be thought too unimportant to deserve the Attention of an Author, since it is found, and will be shewn, that many of the dire Evils of Life are brought upon us by a want of Attention therein.

The Cause, then, of this Desertion in Physical or Chyrurgical Writers may be imputed to another Source; which is, that some time past the Surgeons and Barbers Company were incorporated as one, and thence ridiculously called the Barber-Surgeons. The Professors of the unscientific Art, willing to avail themselves of the additional Appellation, assumed a Part of its Function, and hence began to
Bleed,

P R E F A C E.

Bleed, Cup, and draw Teeth, inso-
much, that this Part of the Profes-
sion has, for some Time past, been al-
most wholly relinquished by regular
Surgeons. This Intrusion on their
Province is the more to be decried,
since it is manifest that the Anatomy
of the Human Body, and a well-
grounded Knowledge of the Connec-
tion of its Parts, are the only sure
Foundation on which a successful
Practice depends.

To wrest this Part of the Art from
the Hands of the unskilful,---to de-
scribe the several Disorders of the
Teeth, and to point out proper Reme-
dies, are the Objects aimed at in the
following Treatise; how far the Au-
thor's Endeavours are likely to at-
tain these Ends, he submits to the
Judgment of a candid and impartial
Public.

London,
Jan. 1779.

A D I S-

A

DISSERTATION

ON THE

TEETH AND GUMS.

Introduction.

PREVENTION has, in all ages, been deemed preferable to cure itself; the intention, therefore, of the following pages, is to prevent, as far as possible, the evils resulting from decayed or deficient teeth.

That a proper attention to the rules laid down will answer the purpose, the author is sufficiently convinced, both from reason and experience; and in order the more effectually to enforce this precept, it may be necessary to exhibit to view some of those evils experienced from a contrary conduct. In doing this, I shall proceed by

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a descant

a descant on the teeth themselves, so far as concerns the beauty and ornament of the whole body; and in what degree the prosperity of the subject may be affected by being deprived the use of them in the common occurrences of life.

In spite of all the sophistical arguments that have been holden to prove beauty a disadvantage to the possessor, it must, however, be acknowledged a real advantage, since it is not incompatible with any one virtue or qualification: and moreover, if authority is given to the Scriptures, it is by the Creator himself called a blessing; since we find it is frequently said therein, that such an one was well-favoured, being beautiful to look on. We have also innumerable instances of that sole endowment placing the party in the highest situations, and procuring that temporal happiness which, perhaps, no other means could obtain. It being, then, allowed that beauty is a desirable acquisition, (and it must be so, else why is every one willing to possess it?) it remains to shew how far it is connected with the present subject.

A being is more or less beautiful, in proportion as it approaches towards perfection in its frame; it will surely, then, be

be readily allowed me, that every individual is highly concerned in the welfare of their teeth, since they contribute so much to the perfection of the whole. The teeth are often the first remarked, in describing an elegant figure, which every one naturally wishes to possess: a pleasing form makes us not only happy in ourselves, but our company desirable to others; and nothing contributes so much to embellish that form as a fine set of teeth; it gives an additional weight to every other accomplishment, and is often the means of concealing real defects.

The evils resulting from a want of perfect teeth, may arise from three distinct causes, viz. a defect of teeth themselves; a deformity of them; and, lastly, a disease in them, or the gums that surround them. The first of these will be considered in the chapter of their formation, and the others under their respective heads.

Among the many we see with blemishes or deformities of the teeth, some may have been natural and inevitable; yet I may safely say, that nineteen in twenty suffer from an inattention to them in some part or the whole of their lives. Although nature should have endowed a person with fine sound teeth, yet unless pains be taken to

keep them clean, it is almost impossible they can long continue so; and, on the other hand, should this so necessary a duty be regularly performed, it is equally improbable but that they remain good to an advanced age, exclusive of external accidents, or other remote causes, such as salivation, &c. Seeing, then, the vast importance of keeping the teeth and gums clean, it behoves every one to perform this office unremittingly; directions for which will be given under the chapter for that purpose. If by neglect and want of cleaning, a person has suffered the teeth to decay intirely, they can never be brought back to their pristine state, nor be replaced by others, so as to answer the purpose we wish, whether they be natural teeth or artificial, in spite of the false assertions and advertisements of some to the contrary. Many fall under this predicament from want of due consideration, as the evils are not suddenly felt. How many people of real learning would be ornaments to society, but for this misfortune! For if they should be tempted to speak, the hearers, instead of receiving real information, are amused with the idea of some caricature, and are often thrown into an involuntary laugh, which cannot fail to be followed by
a distress

a distress of the whole company; so that the most sensible and convincing argument would lose its force through such a vehicle.

Every individual is desirous to obtain the art of pleasing in conversation, and no one can doubt of the impossibility of doing that effectually while there is the least defect in the mouth. Pronunciation is materially affected by every misfortune that befalls the teeth; so that many people who were by nature and education intended for publick speakers, are thereby precluded a genteel livelihood. It may therefore with truth be said, that one of the most material duties of a person, intended for an orator, is that of attending to his teeth; since all the qualifications he may possess beside, with a defect therein, will not enable him to become an orator. If this should happen to one intended for the bar, pulpit, or stage, it will prove an insurmountable obstacle to his fame and progress, and his education must be otherwise applied.

Having considered, then, how much the eye and ear are charmed by the teeth in a sound state, let it be remarked how much the sense of smelling is offended by them in a contrary one. Though it may not be discovered by the
person

person whose teeth (if foul) are offensive, yet every one in company must soon discern it; as the breath is every moment charged with sanious effluvia that exude from the teeth and gums. Every one, therefore, under this predicament, is liable to become odious to every person in whose company he should fall.

It is not to be wondered, that people who have an offensive breath from foul teeth, are not apt to discover it in others, since they are themselves accustomed to the putrid exhalations of their own, which necessarily will be taken up in inspiration. It would be improper in me to suppose the fair-sex can need to be reminded of this; since delicacy is one of their shining characteristics, and a deficiency of it in them would be sooner discovered.

Having said so much of clean teeth, in respect to the ornament and use of them, let us next consider how far the health may be affected by a want of them. Digestion is the most important of all the muscular actions of the body; if, therefore, by any accident, this essential work is interrupted or diminished, disease is the certain consequence. As far, therefore, as unsound teeth may tend to frustrate this part of the animal œconomy, so far may they be
said

said to injure the health of the whole body. The grand inciter and support of the digestion of the stomach is the liquor of the salivary glands, which is abundantly drawn forth in mastication; so that should the teeth be unsound, or deficient in number, this latter action would be imperfectly performed; consequently, less of the saliva is carried in deglutition to the stomach, than is necessary to compleat the digestion. Besides, the teeth, if unsound, cannot effectually divide the food, so as to be assimilated into chyle for the nourishment of the body; hence weakness, and a degeneracy of all the fluids of the body, the general complaints of persons who have bad teeth. Another, not less universal, is that of the heart-burn and pain of the stomach, owing to the pieces of food being ill comminuted, whereby they injure the tender fibrillæ of its internal coat.

The lacteal vessels, through which the chyle is carried to the blood for the nourishment and strength of the body, are wonderfully small, insomuch that a grain of sand is sufficient to cover the mouths of a thousand of them; if, then, our nutriment be not well divided and broken to pieces, so as to incorporate with, and give out its virtue to the fluids we drink,
how

how can it be expected that the nutriment can be absorbed, and the body preserve its wonted strength? Instead of which, it grows enervated and enfeebled, the juices become vitiated, and a perfect marasmus insues; in which case the person is said to die of a decay, without any farther inquiry how it came on.

By this time, it is hoped the judicious reader will agree with the author, in the necessity of laying down some rule for the prevention of these disasters; he will be likely to excite the more candour in his readers, since he has no interest to conceal any thing from the public that would oblige them to have recourse to him, or any surgeon-dentist. On the contrary, he affirms it as a fact, that by an attention to the rules laid down hereafter, a person may be able to preserve his teeth in as good, or probably better order, than if he was to pay ten or twenty guineas a year to a dentist; since he must absolutely do something to them on that account, whether it be necessary or not,

Description

Description of the Teeth.

IT is by no means thought necessary to give a physiological account of the teeth, any farther than to convey to the reader a just idea of the rationality of what will be hereafter advanced upon the subject of their diseases; since this, like the other parts of anatomy, can only be learned by dissection and ocular demonstration.

The teeth are a particular species of bone, of a very dense, compact nature; and not being laminated like other bones, are not liable to exfoliation. The number of teeth, when perfect, in each jaw of a human body, is sixteen; the four anterior of which are called *incisores*, from the Latin verb *inciso*, to cut; the two lateral to these are the *canini*, or dogs teeth; the four next, or two on each side, *dentes molares parvi*; the two beyond these, *dentes molares magni*; and the last are called *dentes sapientiae*, or wise teeth, from coming when we have attained the age of maturity.

That part of the tooth which is hidden from our view is called the root, and is inserted in the socket of the jaw, and there rendered firm and immoveable by that

species of synarthrosis, or articulation, which is called gomphosis; the circular ridge next the gums is called the neck, and is less in circumference than the superiour part or body of the tooth, the top of which is called *corona dentis*, or crown of the tooth. The enamel of the tooth is that polished substance which surrounds it as far as the neck, the texture of which is still harder than the tooth itself.

Anatomists, describing this part of the body, have considered the tooth as covered throughout with this enamel; which error they have been led into by the evenness of the entire surface of the tooth: but if we carefully examine a tooth, we shall find the enamel cease at the neck, where the fibres of the gums are attached. The inferior part of the tooth, being surrounded by the gum, does not stand in need of this covering. If, however, by any accident or disease, the teeth are deprived of that shelter, they soon decay in that part; so that, we see, a disease of the gums may be as fatal to the teeth as if it were seated in themselves.

The teeth are largely supplied with nerves and blood-vessels, the form of which are derived from the maxillaris and auditory nerves, and which accounts for the

the pain so sensibly felt in those parts of the head in the tooth-ache, by the well-known doctrine of sympathy. The roots of the grinders possess a larger space than the upper part of the socket, in which they are fixed; this sufficiently accounts for the extraordinary pain in the extraction of the tooth, as it necessarily must considerably dilate, if not fracture, the upper part of the jaw.



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The

The First Dentition.

I Shall aim to be particular in my directions under this chapter, as it is of the greatest importance to many thousands; and to which shrine as many children have been sacrificed through ignorance. I flatter myself, that by an observance of the rules laid down under this head, the lives of many of those tender subjects will be saved, the parents exempted from unhappiness, and the community benefited thereby.

In looking into the bills of mortality, who can refrain from almost weeping at the dreadful account, when he sees that near one third of the infants who die under two years of age, fall by dentition! and I am myself convinced, that many are not numbered in the list, but are said to die of convulsions, fevers, consumptions, &c. most of which are brought on by teething: who, that reflects on this dire account for a moment, can withhold his advice to the parent, or nurse, to whose care the tender babe is committed during the progress of this trial!

It is impossible to know the precise time of a child's cutting his teeth, as it varies according to the health and strength

strength of the infant. There have been instances of a child being born with teeth; others have lived to two years without the appearance of a tooth: however, as near as can be, dentition is effected in the following manner. About the fourth or fifth month, the two front incisores of the lower jaw shoot out, after which the largest of the incisores of the upper, which are followed by the two side ones of the lower jaw; and these again by the smaller ones above, which compleat the number of incisores: then, in four or five months, appear in one or the other jaw, as may happen first, the canini; and next to these, the small molares; making in the whole ten teeth in each jaw, which are called milk-teeth, and are found by nature to answer every purpose till about the sixth year, when the four foremost great molares are produced; after which the process of dentition ceases till about the twelfth or thirteenth year, which furnishes the four other molares. The four great molares being cut at a time so remote from the first ten, has occasioned this period to be called the second dentition, and so of the latter four being called a third dentition. By the same rule, we might call the time of cutting, the sapientiae (which is in or about

about the eighteenth year) the fourth dentition; but these distinctions are unnecessary, and serve only to confound: and though nature takes up so much time in the work, 'tis in fact but one dentition, the only real second dentition, being that which takes place after the shedding the milk-teeth, which in common begins about the fifth year.

Our care, as to the child's teething, ends when he has attained the ten milk-teeth, which, as was observed before, is generally completed in the first two years; often in eighteen months. This period being over, renders the child's life much safer; and *vice versa*. In order, therefore, to render it less dangerous, it will be necessary, in my directions, to go back to the time in which dentition is supposed first to affect the health of the child.

Although the teeth do not, in common, appear till the the fourth or fifth month, yet we may reasonably presume the child suffers considerable pain from their first attempting their way through the gum; in which case, if the child be uneasy and restless, and hot withal, and if he attempt to put his hand in his mouth, and no visible cause can be assigned for all this, we reasonably enough conclude he is about to cut a tooth;

tooth ; more especially if he drivels continually at the mouth. The same cure, as in the first instance, is necessary throughout dentition ; and the rules I shall lay down are such as can in no case be attended with the least ill consequence in any hands whatever, but may, with safety, be pursued indiscriminately by all those who have the care of children.

I shall premise these directions, by exploding some very old and generally adopted customs among nurses ; who, above all other creatures in the world, are the most obstinate and deaf to conviction, often setting up their own practice against that of the most experienced physicians, and even reason itself. However, in this instance, I flatter myself I shall be able to convince them of their error, by arguments supported by and referred to common-sense. If, after all, there be of the above tribe, those who are determined not to be put out of their old road, they deserve no better appellations, than *murderers*, though the unhappy parent cannot, in the eye of the law, treat them as such.

It has been the custom, from time immemorial ; to furnish the child, almost as soon as born, with a weapon of a very destructive

structive tendency, well known by the name of a coral. The infant is soon taught to use this, by the officious nurse; who, eager to display her knowledge, is continually cramming the smooth end of it into its mouth, and then working it from side to side on the child's gums; every touch lays the foundation of greater ills; for it daily hardens and thickens the gums, and renders the efforts of nature less effectual in piercing it with the edge of the tooth.

To facilitate the passage of the tooth through the gums, the All-wise Providence has given the edge of the tooth a shape like that of a saw, that it might not press equally on the blood vessels, so as to stop intirely the circulation of that part; but the blind obstinate practices of nurses, in the friction of the gums with this coral, or other hard instrument, abrades those points which are kindly intended as little lancets to open the passage. By this continued mal-practice, the edge of the tooth is blunted, the gums are so indurated and thickened that the tension of the part is considerably augmented, and the consequent inflammation in the tooth, pressing against the gum, heightened to such a degree as endangers the life of the child.

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By this time, the infant begins to be feverish, from the inflammation and pain communicated to the fifth pair of nerves by means of the two branches of the maxillaris; the heat there produces a coltiveness, and from these symptomatic diseases the child is universally ill. In this situation, the nurse is its only physician; and, if one be proposed, she tells the mother, "That nothing can be done for it, as she is sure it is only its teeth." She therefore doubles her efforts to make way, as she thinks, for the tooth, by rudely fretting the gum with the delusive coral; which is, in fact, adding fuel to fire. It is wonderful the absurdity of this practice has not shewn in the face of the whole world; for we might as well expect that a gardener would trample on the beds of asparagus, to facilitate the exclusion of the heads through the earth. But, to return to the subject.

The nurse, wearied for the present in the task of chafing the child's gums herself, makes it its own foe, by putting the weapon into its own hand, who, neither guided by reason, nor instinct, but led by the feelings of the infant, forcibly crams it into its mouth, and then shutting it eagerly, violently wounds the gum, and
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perhaps breaks off a bit of the edge of the tooth, which, by this time, lies near the superficial part of the gum. The pain brought on by this violent contusion, serves but to increase the general inflammation; and as the nerves of the head are strongly affected, the child becomes delirious and convulsive; and if the costiveness has been of any continuance, the fever will be violent and lasting, so that he will be thrown into a general hectic and decay, unless the convulsive spasms return frequently, in one of which he may probably be taken off, and thereby rescued from the misery of a more lingering death.

This being the unexaggerated state of the case, can we but lament that no author, to this day, has ever made the least remark upon it? I have myself been an eye-witness of the dire effects of this barbarous custom in a child, where the nurse, by repeated friction of the gums, had rendered them in a manner callous, so that it was impossible to expect the tooth could make its way through a body of a nature as hard as its own. It was proposed to divide the gum with a lancet, in the place where the tooth was about to protrude itself, which might easily be discovered by the prominence of the gum. This
not

not being consented to in the first instant proposed, the female adept fell to work, a second time, with a thin-edged six-pence; averring, that that would do the business effectually, without hurting the child.—By a parity of reasoning, it would be better to amputate a limb with the edge of a silver dish, or any blunt instrument, rather than with a sharp one.—In this manner she continued to trifle with the life of the child, till a relation, wiser than the rest, insisted the gum should be divided; this was done in three seconds of time, without the child being scarce sensible of pain, by which it was rescued from the fate of whole hecatombs who have gone before it. And even this operation of dividing the gum would seldom, if ever, be necessary, were the work left intirely to nature.

Having thus deplored the evils brought upon children, by an ignorant treatment of them in this important period of their lives; it cannot be thought improper for me, in this place, to lay down certain rules for the successful management of them.

First, let it be well considered, that almost every infant that is lost in dentition, dies of some symptomatic, or rather secondary disease; such as convulsions, fever, diarrhoea, &c. all of which are consequent

on teething, and take place according to the original stamina of the constitution: and that this is really the case, is obvious; for we never hear of a suppuration or mortification of the gums.

From this consideration, we are shewn of how much consequence it is to watch the progress of the work of teething, and to guard against the consequent symptoms becoming violent. By a due attention to the orders and rules laid down, it is a fact that the nurse, or other attendant of the child, may as effectually prevent the child's falling into a state of danger, as if he had the assistance of a physician; for the nurse is always present when the physician is not, and, consequently, can sooner distinguish the channel into which the complaints are likely to run, and, by a timely interposition, mitigate their violence.

The order in which nature generally succeeds is as follows: When the teeth are raised some height from the sockets, so as to press, in some degree, on the gum, the child begins to feel an uneasiness, which at first makes it rather dull than cross; but as they advance still farther, so as to distend and stretch the nerves and vessels of the gums, its sufferings are considerably heightened:

heightened: it therefore begins to cry, and be restless; which, if not appeased and relieved by art at this period, will be sure to lay the foundation of a dangerous illness. The mean, therefore, to be adopted, is to procure the child rest, by giving it repeated small doses of anodyne, such as Godfrey's Cordial, or, which will be better, as the doses will be more easily ascertained, half a tea-spoonful of the syrup of diacodium, for two doses; or one drop of laudanum repeated as occasion may require. No fears need be raised as to the effects of opiates being given to these young subjects; it being certain that, however often repeated the doses are, if they be not too large, no instance was ever found of their being of disservice: on the contrary, where their use has been dictated by pain and partial inflammation, many lives have been preserved, and many more might have been, if timely administered. By giving the young patient small doses of laudanum, as the exigence of the case shall require, he is not worn out with pain and want of sleep, which are as bad as continued crying; but its strength is preserved, so as to be able to support the remainder of the work; and I am confident in this my opinion and assertion, that, by the management of it at this

this important period, the fate of the child is struck ; as, if the first indications be rejected, a fever, for the most part, arises, whence sickness, vomiting, purging, spasms, and, lastly, convulsions.

It is exceedingly common, on the first onset, if the child be of a strong frame, that a costiveness ensues, by the heat which is derived from the gums, to the other parts of the body. It behoves the nurse, in this case, to soften and loosen its belly with a little manna, given in water-gruel, or any other convenient vehicle. This lessens considerably the rigidity and tension naturally excited by the acceding fever, the continuance of which will be prevented by this prudent interposition : if, on the contrary, from the tender frame or relaxed habit of the child, or from any other cause, a purging is brought on, it should be particularly attended to ; otherwise the strength of the child will be exhausted, the fluids of the body vitiated, and another train of evils will follow. If proper attention be paid to the advice given respecting the composing medicine, this last complaint will seldom run to any extreme ; but should it exceed the bounds of safety, five grains of compound powder of crabs claws must be administered, and repeated

repeated as occasion may require. The same quantity of clean chalk is no improper substitute to the crabs claws, and will be found to have an equal good effect.

It is impossible but that some extraordinary heat will sometimes follow the efforts nature is making to pierce the gums, especially if the child be of a strong, gross habit; but the accession of a fever will be prevented, by giving it a more than ordinary quantity of diluting liquor, such as barley-water, rendered palatable by boiling a few raisins therein, and afterwards dissolving eight or ten grains of nitre in the quantity it takes in the day.

During the whole progress of the first dentition, the only application that can safely or judiciously be made to the gums themselves is, with a soft *doffil*, or piece of cotton, dipped in warm oil of almonds, or other innocent, penetrating oil. Another useful application is that of the decoction of a poppy-head, applied in the same manner, which allays the tension of the gums, and considerably abates the inflammation of them.

These are the only topical remedies that can be devised with efficacy and safety, and may be repeated very often, without

without the least apprehension of inconvenience or danger.

Nothing is so common, at this period of the child's life, as to observe a greenishness in its stools, occasioned by the milk, or other food, having acquired an acidity in the stomach and bowels, from the increased heat and irregular motion of those organs, together with the stimulus and pain the child suffers from its gums being continually compressed. Even this symptom, from real neglect, is often attended with fatal consequences, as it keeps up a continued purging, which frequently brings the child to the grave; or else, by its acrimony, it brings on convulsions, which do the same office. The most effectual, and, indeed, infallible method of relieving this symptom, is to give it repeated doses of *magnesia*, made according to the London Dispensatory; and if the child be very lax, and have a frequency of stools, equal quantities of prepared coral or chalk should be mixed with it. Sometimes it may be necessary, where stools are so very frequent, to give the latter medicine alone.

Thus, then, we see, more attention is necessary to the symptoms, than to the disease itself; and when we see a child cut
its

its teeth without any of these disorders, it is where its real strength of frame is great, and where every other favourable circumstance conspires; for the least weakness on the side of the opposing part will degenerate into some, or (if neglected) even into, perhaps, all the evils described.

Convulsions are the natural consequence of the foregoing symptoms being neglected in the first instance, and afterwards suffered to run on till the powers of nature are in part exhausted. Convulsions, therefore, are no disease of themselves, but are symptomatic, occasioned by an unequal distribution of the vital influence, which if it should happen in the meninges of the brain, a deprivation of sense takes place, and the muscles about the face are distorted and drawn into frightful forms. If it should happen in the lungs, a difficult and laborious breathing succeeds, with distortions and distractions of the whole body, as is seen in persons strangling. When this unequal influence reaches the heart or aorta, or any of the superiour veins, as cava, &c. the systole and diastole of the heart no longer keep pace with each other, (discoverable by the intermittency of the pulse) the great reflux of the blood, therefore, suspends or totally stops its contraction,

tion, and the patient dies in a state of inertion and calmness.

If it happens, then, that from neglect of attention to the first complaint, or any other cause, convulsion is brought on, all that can be done is, to give the child, if possible, some little stimulating cordial, as, now and then a tea-spoonful of warm brandy and water sweetened. Frictions of warm cloths over the belly and stomach will often shorten the fit: blisters would be of more service, but they do not begin to operate till the fate of the fit be decided; their place, therefore, is well supplied with irritative embrocations, such as spirits of wine and camphor, and sometimes spirits of hartshorn, or a plaster of flower and mustard applied to the stomach. Applications of this kind frequently render the fits shorter in continuance; and, indeed, are generally our only resource, as it is with difficulty any fluid can be conveyed to the stomach. Glisters of broth made warm with cloves and mace are of sovereign use, as they not only answer the purpose of the foregoing, but serve to nourish the child, and keep up its little strength from totally sinking; nay, it is possible, by this method only of conveying nutriment, that a child might be kept alive many days, even

even weeks, where the stomach has been gradually deprived of receiving its food.

When, by any or all of these means, the fit is taken off, attention must be paid to the primary disorders which occasioned it; and on no account omit to give small doses of opiates, at regular periods, with some pleasant cordial, as a little tent-wine, &c. whereby the pain will be abated, and the child will recover strength, till nature intirely overcome the disease.

Some persons may think I have been too particular on this subject; but it is of such great importance to the lives of a vast number of infants, that I plead this as my apology; being convinced that many have prematurely fallen victims to the jaws of death, for want of due attention and consideration herein.

After thus enumerating the evils attendant on dentition, the author has only to add, in this place, that he is confident a strict adherence to these rules must be attended with success nineteen times in twenty, and which will be even farther insured, if the nurse, or attendant on the infant, would, with a doffel of lint, moisten its gums once a day with the Dentilave hereafter to be mentioned. This will be a mean of taking off, or abating the tension

and rigidity of the fibres of the gums, causing their fluids to circulate through them with greater facility, and preventing obstructions and inflammations. When administering this, the end aimed at will be better effected by holding the child's head in an inclining posture, so that the abounding fluid (drawn off by the Tincture) be suffered to run freely off.

The Tincture alluded to has this farther advantage, that it will keep any length of time, and may be had always at hand for use; and moreover, if the child should even happen to swallow a little, it would do no injury; but this may, nevertheless, be prevented.

This Dentilave Tincture will be found of great use when the teeth have made their way through the gums, and left an unevenness in the latter, so as that the food is apt to lodge in the spaces, contaminating the root of the teeth, and causing them to fall out before their usual time; the effects of which are, that the gums close up, and the new teeth are put into a wrong direction. Besides, if an application of this kind be not frequently made, the contamination will spread itself to the new bed of teeth intended as a second course, and, making them of an ill colour, and
destroying

destroying their hold, cause them to decay prematurely. It is from a neglect of this sort, that we see so many hundreds of young people lose their teeth intirely, and others have them irregularly placed in the gums. When this Tincture is applied to the gums of children, already in part supplied with teeth, a fine soft brush will be most likely to dislodge any thing offensive in the interstices of the teeth and gums, and will gently insinuate the medicine into the cavities of the gums; which, by its friendly antiseptic quality, will keep them in a state of cleanness and soundness. This is the only attention necessary till the child arrive at the second dentition; which will undoubtedly be favourable, if there have been no neglect in the preceding rules.



Of the Second Dentition.

ALMOST the same order is observed in the second dentition as in the first, only great care is necessary that the gums be kept clean, and often moistened with the Dentilave Tincture; for, as the milk-teeth sometimes fall out before the second are far advanced through the gum, there must necessarily be formed vacuities in the gums, which, readily admitting pieces of food to lodge there, are, by the natural heat of the gum itself, soon corrupted; whence proceeds a contamination of the young teeth. The same would be the case with almost the whole set, unless the Tincture were applied now and then with a brush, so as to dislodge any particles of food that might be retained there; for, as the second teeth are larger than the first, there must, of course, be two of the latter to make room for one of the former; so that there will be inequalities and interstices formed in the gums, till the dentition be perfectly finished.

It is therefore obviously necessary to apply the Tincture, with a brush, to the gums; at least two or three times a week during the second dentition; by which application

plication the teeth themselves will not only be kept clean, but the gums also rendered sound, and be made to adhere firmly to them; an effectual prevention from their becoming ill-shaped and snagged, which is often the case through neglect and inattention, as the roots, not being yet firm, are liable to be displaced from masticating the least solid substances.

Thus, with care and attention to the rules already laid down, it will be almost impossible for the child not to have a fine set of teeth, while there will be an absolute certainty of his having sound ones.

The mouth being now supplied with the full number of teeth, our next inquiry will be, how to preserve so great a blessing and ornament; after which we shall describe the nature of the tooth-ache, and lay down a method to remove it, as well as to guard against its return.



Of

Of the Tooth-Ache.

THERE are few diseases more painful or troublesome in their nature than the tooth-ache, the sufferers of which (though they may seldom meet with it) are highly deserving our pity.

The cause of this disease may be various: from obstructions and inflammations of the nerves and vessels of the teeth themselves; from morbid matter collected in the vessels surrounding them; from the teeth being exposed to the air, by the gums losing their hold, owing to scorbutic or venereal disorders; from the effects of too large a quantity of mercury having been taken into the habit; from tartar having formed itself between the teeth and gums; or from a variety of other causes.

A patient afflicted with this complaint has generally recourse to a tooth-drawer, who commonly advises extraction, be the cause what it may. The unhappy sufferer is so tormented with the pain, that he readily consents to any operation whereby he is at all likely to be released from it, and the artist seldom fails to promise him a radical cure from the instrument. Now as the causes of the disease are so very various

rious and remote in their natures, it follows, of course, that the operation must often be fruitlessly performed, and as frequently be the mean of bringing on greater evils, without removing, or even lessening, in the least, that which we have now under consideration; for should the disorder be seated in the correspondent gum, or be owing to an inflammation in the surrounding vessels, it seldom fails to be aggravated, to a considerable degree, by the distension of the socket of the jaw, and by the laceration of the gum which attends the extraction of the tooth.

The tooth sentenced to be drawn is generally that where the sense of pain is felt; but it is not unusual for the real pain to issue from a disorder in another tooth, seated, perhaps, on the contrary side of the same jaw, and even sometimes in the other opposite jaw. That this is often the case is certain; and the reason is well known to all those who are in the smallest degree conversant with the doctrine of the sympathy of the nerves in the human constitution.

Should a person, therefore, thus circumstanced, be persuaded to submit to the operation, he would be as far from the cure as before; and, besides, would have the mor-

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tification of reflecting, that he had lost an useful tooth which might have remained in its place as long as he lived.

The extent of this rash and mal-apropos practice does by no means stop here; for when the desired ease is not obtained by drawing one tooth, the inconsiderate, unskilful artist, advises the removal of a second or a third; and I have known those who have really had patience to endure the excruciating torture of drawing five sound teeth for a pain in the jaw, which seemed to originate with the left anterior molaris of the upper jaw. As soon, however, as that tooth was removed, the pain was transplanted in the next, and so on to the last; when it was found to be a periodical disorder, which could only be removed by repeated doses of the cortex.

There are never wanting those who are easily persuaded thus wantonly to throw away their teeth, either from undervaluing them, or from not having hitherto experienced any disadvantage arising from a deficiency in them. If the patient should attempt to reason with the operator upon the case, he will be answered, that provided the operation do not succeed, he can at any time put in artificial teeth in their room that will be more beautiful, and not less

less useful in all the purposes of articulation, mastication, &c.—These are the daily promises of artful, designing people, whose bold assertions, though often repeated, have never yet been verified.

There are, doubtless, cases in which the operation may be judiciously and properly recommended; such as, where a tooth has been for a long time carious; for then the nerve of the tooth being exposed to the air, is, of consequence, always likely to become painful: the extraction is the farther indicated, if the perforation into the carious cavity be so large as would not answer the purpose, if filled with gold, lead, or even wax; for when the orifice of the tooth is large, it will not admit of either of those expedients, as, in mastication, the force of the pressure of the substance with which the tooth is filled, is in proportion to the superficial circumference of the cavity; so that the nerve would be so compressed by the extraneous body as not to be endured. Whenever a case of this sort occurs, it is better to apply to a gentleman of the profession; who, it may be expected, is of too liberal a mind to trifle with the disorder for the sake of avarice, as is the case with most of the common tooth-drawers.

It cannot be denied but that an operator who accustoms himself to this operation singly, must perform it with, perhaps, more dexterity than others duly initiated in the medical profession; but then, unless he has had a previous knowledge of anatomy and diseases, he will be often at a loss to understand the relation they bear to each other. There are, however, to be found in this metropolis, gentlemen regularly bred to physic and anatomy, who do not think it derogatory to their reputation to give themselves up to this part of the profession; and into such hands only can the afflicted safely flee for the desired relief.

Although, as I have before observed, some cases occur that point out the *extractor* as the only fundamental cure, yet nine times in ten the disease might be relieved by gentle means. The loss of a tooth is of so much consequence to the owner, and so irremediable, that it should never be consented to but where all other means are likely to fail; and could people but foresee the change it makes in their speech, shape of the mouth, (such as suffering the cheeks to fall in, as in old age;) could they but anticipate these ills only in idea, they would never condemn a tooth to extraction but from real necessity. Were the

the tooth even of no use in chewing the food, yet it is so preferable to an artificial one, in preventing a chasm in the jaw, that it is highly advisable to retain it, provided it can be prevented from aching, and which happy circumstance may almost always be effected. The innumerable quantity of sound, as well as unsound teeth, seen at the common tooth-drawers, ought to be a memento to this rash practice; but daily experience evinces, that people in general are become so careless of their teeth, that on the first attack of the tooth-ache they flee to the first and nearest of these adepts, whose ignorance makes him readily comply with the patient's request of having it taken out; when he ought to know, that at this state of the disease the tooth may be recovered, so as to be equally useful with any in the mouth. This inconsiderate conduct is the reason why we see half the people of this country lose, perhaps, one third, or more, of their teeth, while they are in their youth and prime of life.

Of the Tartar of the Teeth.

THE formation of tartar on the teeth cannot be said to be a disease in itself, since it will naturally happen as well to healthy as unsound constitutions. The tartar proves to be a combination of salt and earth, the colour and hardness of which depend on the proportion the one bears to the other. We know that every fluid in the body participates more or less of these *elements*, the blood itself not excepted; even the *materia perspirabilis*, though attenuated to so minute a degree, is found to contain a proportion of those principles, but which, were it not for their being immediately carried out of the body by sweat, or insensible perspiration, thus leaving no traces behind, would have a contrary effect if a *nidus* or *medium* were found to assist in their conjunction. This we see happen daily in the urinary calculus, which is, in principle, analogous to the tartar of the teeth. The tartar of the teeth is formed from the saliva, which contains not only a sufficient quantity of earth and salt for this work, but its clammy quality also contributes to its immediate formation. This process is more particularly

larly carried on in the night, as in the day the motion of the mouth, tongue, &c. would prevent its lodgment. The teeth are the parts destined for the reception of this concretion, being unable, from their inelasticity, to repel or dislodge it; and, in the night, the saliva that is secreted by the glands of the *fauces* is more glutinous than in the day, their action being heightened by the action of the contiguous muscles. This viscidty of the saliva is increased by the finer parts being carried off with respiration, so that it hangs about the teeth, and insinuates itself between them and the edges of the gums. It receives also a farther addition from the putrid remains of the food that lodge themselves in the same manner, and which (to every, the smallest natural philosopher) are known capable of resolving, by putrefaction, into the same principles before mentioned. If, therefore, this new formed concretion be not removed by a brush and some dentifrice, it will every day become harder and harder, and collect itself *stratum super stratum*, so as not only to be injurious to the teeth and breath, but even to distort and distend the lips, causing them to become horrid and shocking to behold.

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We find, therefore, that this complaint is purely the effect of negligence, since a little use of the brush, in the first instance, would have prevented its taking place.



Of

Of the Cure of the Tartarous Concretion on the Teeth.

IF this disorder has not already arrived to a great height, it is probable a recourse to the brush and the Dentifrice may effectually remove it; but I have seen instances where the tartar of the teeth has acquired a hardness equal to the teeth themselves, almost an equal resistance to a stone or piece of glass. Where there is not a possibility of removing the tartar by other means, and that its removal is pointed out either by pain, &c. recourse must be had to the instrument; but this should never be done, except in cases of real necessity, for the reasons hereafter given. I am sure many people are unwise enough to submit to this operation, when gentle means would succeed much better; and, indeed, it does not follow that the teeth must be rendered of a better colour, since the tartar has frequently so incorporated itself with and contaminated the enamel, as to bring the latter off with it, and therefore leave the teeth in a worse condition than they were before. This could never have happened from the brush and Dentifrice; since, even though the abrasive power of it should operate

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rate upon the enamel, (which is scarcely possible) we can apply it just as we please, and omit it when we have reached the enamel; and after this apply it as a preventive only. We see, therefore, the cure and prevention of this complaint are both very simple and easy; nothing more being required, than to persuade people to put that value upon their teeth which their use and beauty naturally point out.

Now, although the profit of operations upon the teeth is fifty times greater than that of the means I have adopted; (hence the reason of so many foreign surgeon-dentists, whose practice has often proved equally foreign to the welfare of mankind;) yet humanity dictates to us, that where a disorder may be removed by simple means, without the least risk, and when others may be the occasion of greater evils than the one intended to be removed, interest ought not to be brought into the scale as a counterpoise for the ease and health of a patient. That this last, it is to be feared, is a material consideration with many of those who call themselves *surgeon-dentists*, may be gathered from the premises of the subsequent chapter.

Of the injurious Effects of Scaling the Teeth.

THE operation of scaling the teeth is now become so prevalent, that many surgeon-dentists find patients who agree to give them so much a year, and assign their teeth over to them as trustees; the surgeon-dentist, on his part, agreeing to pay all expences of grinding and preserving the polish of his own instruments. People the more readily make compacts of this kind, under this false notion, that they shall thereby be exempt from any trouble with their teeth themselves: but even in this they are much mistaken, for the united efforts of all the surgeon-dentists in the kingdom, could not insure their teeth a year without some care on the part of the patient.

There is no proverb more true, than that “*One fool makes many.*” If a person has originally had good teeth, which, from neglect, are incruited with tartar, it is *probable*, but by no means *certain*, that if that tartar be removed by the instrument in scaling, the white enamel may be again exhibited to view, and be pleasing as before. It is this probability

which has brought this operation into use and repute, though unworthily; since the brush might have done it equally well, and much more safely, unless its adhesion to the teeth was very firm indeed. Nay, even though it might be argued, that, in this *one case*, scaling was the most feasible remedy, yet it ought not to induce every one implicitly to adopt it, seeing the operation is sometimes attended with the most pernicious consequences.

The two following cases are not adduced with a view intirely to explode the use of the *rugine* or *scraper*, but to shew that recourse should never be had to them but upon, at least, a reasonable presumption that other means would be totally ineffectual. Whenever such cases do occur, I would earnestly recommend it to the public, not to overlook intirely their own countrymen, who, as well as foreigners, consider themselves as having characters to lose; and who are more immediately interested in the success of their practice, by this being the place of their birth, as well as their place of abode. Besides, is not surgery or anatomy carried to as great a perfection here as abroad? Are not our countrymen equally extolled for their humanity? and cannot they feel as sympathetically for the distressed

treffes of their fellow creatures? Or is avarice a vice more prevalent with us than with foreigners? I am afraid we are too apt to be led away by novelty, and the specious sound of glaring titles; such as Surgeon-dentist to a Queen, or a Princess; a title that, staring one in the face in almost every street of this great metropolis, might bring disgrace upon the profession, by inducing some to believe they were either easily or unworthily obtained. Many native, however, as well as foreign artists, taking advantage of the credulity of the public, the characteristic of the English nation, seem determined to make the most of their patients, passing *counterfeit* for *sterling* merit, under the following mask; *Si vult populi decipi, decipiatur.*

But, to return from this digression: Knowing how little credit is given to narrations, unless they are properly authenticated, the following cases are selected, as being well known in the respective neighbourhoods of the persons. The first is that of an eminent apothecary in Marlborough-Street, whose practice for these thirty years has procured him the esteem of all who have the pleasure of his acquaintance; and although he has the greatest reason to complain of the malpractice

practice of the surgeon-dentist, yet his great humanity has hitherto withholden him. Hearing accidentally his case, I was determined to take the first opportunity of making it public, only in such a manner as neither to wound the delicacy of the one, nor injure the reputation of the other. With respect to the former, he is totally ignorant of my intention to publish at all on this subject; and in regard to the latter, should this Treatise perchance fall into his hands, he must do me the justice to acknowledge, that the manner in which I have mentioned it ought to convince him, that neither envy nor malevolence gave rise to the relation. It was, indeed, a case much in point, as to the subject on which I am writing; and I think myself perfectly at liberty to quote it, without exposing myself to the odious epithet of attempting to raise my own fame on the ruin of another's.

Mr. M---c---h had originally a good set of teeth, but incautiously suffering a tartar to form on the enamel of them, they became a little unsightly. He applied to Mr. H****, a surgeon-dentist, who enjoys annually the sweets of royal munificence, who persuaded him to have them scaled, as he called it. Mr. M. paying implicit compliance to the request of the dentist,

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whose experience, while it pointed out to him the necessity, taught him to fear nothing from the operation; more especially as he was farther encouraged to it, from the docility of those who, moving in exalted spheres, had already trusted their masticating powers into the hands of this celebrated operator. The operation was no sooner done, than Mr. M. began to feel a very great pain, similar to that sensation described by "setting the teeth on edge." This increased to such a violent degree, that it was imagined the inflammation was about to resolve itself by abscess or suppuration; and it was thought necessary to draw a tooth, in order to give discharge to the matter supposed to be lodged in the alveolar process. The pain soon extending itself to all the teeth, the drawing of the one mentioned had not the least effect; he was driven to the necessity of having two more drawn, and a perforation was made into the jaw itself: in short, the whole head became affected so strongly, that the surgeons, who consulted upon his case, were obliged to come to the resolution of drawing every tooth in his head; since opium, bleeding, fomentations, and all other topical remedies, were of no use. Mr. M—c—h bore this dreadful sentence, and

and still more dreadful operation, with wonderful resolution and patience; but, alas! how great must have been the mortification, when, after losing every tooth in his head, he could not lose or get rid of the pain; even though he had, with a farther view of relief, several orifices made into both jaws: nay, the pain becoming so excruciating, he consented to the actual cautery; but this, as well as other means, failing, he suffers to this day (and, I fear, will do to the day of his death) the same torture, in some degree or other; which is often so extreme as to deprive him almost of reason.—To hear him relate the effects of the scaling of his teeth, excites in one the most painful emotions, and makes one ready to wish that a stop were immediately put to the progress of the instrument.

Remarks on the above Case.

THE enamel of the teeth is not only intended as an ornament to them, but as an useful covering, to defend them from the effects of sudden shocks of cold and heat, and of taking acids in the mouth. Now, in all probability, in scaling the teeth, a part of the finer enamel was detached from.

from them, which laying their internal surface bare, exposed the finer fibrillæ of the nerves to the sudden irritations of the cold air. This brought on an inflammation of all the nerves from the same branch and origin; and accounts for the pain extending itself to the head and temples. The inflammation, though it began in the nerves nearest the surface of the teeth, was, however, carried to the superiour branches of them; and, therefore, though the teeth were all drawn, as the seat of the disease was transplanted, the relief, of course, was not obtained.

Though the doctrine of the nerves is least understood of any part of the science, yet we can reason from experience and observation; and it must be remembered, that when a sudden attack has happened by fright, agitation, or other causes, although the cause itself be effectually removed, the symptoms frequently continue; witness many hysterical and other complaints of the nervous kind. This was exactly the case with this gentleman; for notwithstanding the teeth were all drawn, he still suffered the same pain periodically, (though not at regular times) in spite of all the bark he has taken. I forgot to mention, that he even suffered salivation

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for it, with a view of dulling the sensation of the nerves throughout the whole frame; in short, he has exhausted every effort for a cure, which proving ineffectual, makes him, as a worthy man, an object of every one's commiseration.

The second case is that of a lady. I have her consent to publish it, since she confesses it has occurred to others of her acquaintance frequently; and unless some means are adopted for checking the practice, there will always continue to be sufferers in the same way. Were the observations I shall make on these cases such as not to strike the understanding of every reader, I might insert with propriety many other circumstances of the like nature, but they would be needless here, for the above reason.

Miss M. S. was remarked among her acquaintance for her fine teeth; but fancying they were a little discoloured, although no tartar was formed on them, she applied to a foreign dentist; who told her she must have them scaled or scraped, after which operation they would be as white as snow. Considering him in the light of an eminent dentist; and that, as his practice was said to have brought him at least 700*l*. or 800*l*. a year, he could by no means be
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thought to be in a needy condition, so far as that a guinea or two could be no object sufficient to bias him from the line of strict honour in his profession. Whatever was the motive, or ruling passion of his conduct, he set about scaling her teeth; which were really, in consequence of the operation, much whiter. The next day, however, though she found herself unable to bite a crust of bread, she was either totally ignorant or thoughtless of the cause. After dinner, as she was eating some preserved fruit, in the way of dessert, she complained her teeth were tender, and on an edge; which effect being imputed to the sugar of the preserve, she abstained from any more that day; but the next, attempting to eat part of a china-orange, she was struck with the most uneasy sensation of all the teeth in her head, and found the pain spread itself all over the jaws, and part of the face. A gentleman of the faculty being called in, soon found the cause to have been owing to the operation on the teeth, the nerves of them having been exposed to a sudden admission of cold air. She was instantly ordered internal doses of laudanum to allay the pain, it having almost thrown her into a delirium. Fomentations of the decoction of poppy-

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heads were constantly applied to the whole face, and anodyne gargles were repeatedly holden in the mouth; by the frequent repetitions of which she was rendered at length free of the pain, though there has ever since remained such a tenderness of the teeth, that has obliged her to refrain from all acids, saccharine substances, and even all food that requires much chewing.

This case is sufficient to shew the obnoxious effects of injudicious scaling; and that it should never be done but with the utmost caution to keep the teeth from the sudden access of cold air; since by the operation they are rendered exquisitely sensitive and susceptible of irritation.

I have farther to observe in the above case, that if a brush and a dentifrice had been used instead of the instrument, it would have been equally efficacious; since the discolouration of the teeth was very slight: besides, daily experience evinces, that the brush will remove a thick crust of tartar, and though not so *expeditiously* as by the instrument, yet always *safer*, since it is done gradually, and the nerves receive no shock from a sudden exposure, so as to endanger inflammation, &c. Whoever has made the remark, must be sensible that a steel instrument, if only rubbed on the teeth,

teeth, imparts an unpleasant, and, sometimes, even an aching sensation; which proves that it is unfriendly to the nature and structure of the teeth.

So much having been said, to shew that scaling the teeth is often *dangerous*, and never to be desired, it remains to point out a method of conduct that will entirely preclude the necessity of the operation. On this head, therefore, I shall venture to affirm, that if a person, having the teeth compleat, were to furnish himself always with a suitable brush and tooth-powder, and with a tincture for the preservation of the gums, (for the disorder of one mutually affects the other,) and should he use these preservatives once or twice a week, or oftener, as the case may require, it is morally impossible that his teeth should be bad, or ever want scaling or drawing. The little trouble attending this, surely, cannot be thought a punishment. To those who think so, let them be satisfied, that we might as well expect to live long in health without washing frequently the surface of our bodies, as that our teeth should be in a sound state, without our taking the least pains about them.

Should the teeth already have run in part to decay, and a considerable degree of
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of tartar have formed itself upon them, yet by continuing the use of the brush and dentifrice longitudinally, (or, in other words, in the direction of the teeth) there is no doubt but it will give way, and the teeth thereby recover their pristine purity and colour.



Analysis

Analysis of the common Tooth-Powders and Tooth-Tinctures.

I Have often wondered how it was possible that so many people should suffer from their teeth, when there were so many remedies daily offered them. To try how far they merited the epithet of preservers of the teeth and gums, I made several experiments with them, which may be repeated by any one who shall entertain the least doubt of what is advanced respecting their qualities. In the first place, I analyzed one of the most reputed tinctures in use, and found it to be a preparation of the vitriolic acid, though much disguised. Its property, indeed, was that of whitening the teeth; but then it was by means of a corrosive quality, which changed the colour of the natural bluish white into that of a chalky whiteness, thereby rendering the tooth liable to decay and moulder away: for, after I had immersed a tooth in the above tincture, kept warm for thirty hours, on looking at it, I found it was reduced as it were to a mere piece of calcined bone. In short, by a like essay on most of the common tooth-tinctures, I perceived they

they participated strongly of a vitriolic or marine acid, diluted and disguised.

The tooth-powders are the most innocent of the two; but they, too, are frequently composed of such hard substances as abrade the tender part of the enamel, being themselves indissoluble, and made up of angular particles.

I shall forbear saying any more on the subject, lest it should be construed an attempt to depreciate all other dentifrices and tinctures, in order to raise the fame of my own; neither shall I make particular encomiums on those which I have prepared as preservatives for the teeth, but leave the world to judge of their safety and efficacy in the trial. This much, however, I hope I may be allowed to advance, that the Dentifrice Powder contains not a particle of any indissoluble substance, (as emery, powdered glass, &c. the common compositions;) and therefore may be used as often as may be, without the least injury to the enamel of the teeth, since the *latter* is of a nature much harder than the former.

With respect to the Dentilave Tincture, inasmuch as it is exempt from the least taint of any vitriolic, muriatic, vegetable, or any other acid, a tooth may be immersed in it for years, without the least corrosion

rosion whatever, its property being purely antiseptic, thereby recovering and keeping the gums sound, and adhesive to the teeth. As a corroborating proof of this, and in order to remove the least scruple entertained of its effects, a piece of flesh, already on the decay, may be plunged into it, and being afterwards dried, it will be found to be recovered from its putrescent disposition.

Having now, according to my plan, treated largely on the several disorders of the teeth and gums, and pointed out proper remedies for them, as well as the means of preserving them in a beautiful, sound state, I have nothing farther to add on this subject, but to assure my readers, that if proper applications of the Tincture to the gums, and Dentifrice to the teeth, be made according to the directions given with them, it is impossible they should grow foul, or decay, but with old age; nor can there be any so bad as may not be recovered, in some degree or other, so as to be retained in the head, become useful in mastication, and answer every purpose for which Nature designed them. A trial of them in some thousands of persons, for some years past, though never till now called by my name, has convinced me that

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nothing can be safer nor more efficacious. I must, however, candidly confess, that many *dentifrices* will bring the teeth sooner to a white colour; but then, neither this colour, nor the teeth themselves, can last long, on account of *their* corrosive qualities. If the gums should even have become soft and flabby, and quite putrid, the Dentilave Tincture may be applied with great safety, the good effects of which will be deemed astonishing; but in this case it will be well to wait for the teeth being faster, (which will soon happen from a use of the Tincture as directed) before the powder be applied to them, lest the motion of the brush should totally displace them. One great caution is necessary, and that is, always to rinse the mouth with cold water after meals, to prevent any part of the food from lodging in the cavities of the teeth or gums. Many people prefer a little red wine for that purpose, under a notion of its astringency, but that is very improper, since, as it abounds with tartar, its natural tendency is that of discolouring the teeth.

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52	Of the Fiftieth Session
53	Of the Fifty-first Session
54	Of the Fifty-second Session
55	Of the Fifty-third Session
56	Of the Fifty-fourth Session
57	Of the Fifty-fifth Session
58	Of the Fifty-sixth Session
59	Of the Fifty-seventh Session
60	Of the Fifty-eighth Session
61	Of the Fifty-ninth Session
62	Of the Sixtieth Session
63	Of the Sixty-first Session
64	Of the Sixty-second Session
65	Of the Sixty-third Session
66	Of the Sixty-fourth Session
67	Of the Sixty-fifth Session
68	Of the Sixty-sixth Session
69	Of the Sixty-seventh Session
70	Of the Sixty-eighth Session
71	Of the Sixty-ninth Session
72	Of the Seventieth Session
73	Of the Seventy-first Session
74	Of the Seventy-second Session
75	Of the Seventy-third Session
76	Of the Seventy-fourth Session
77	Of the Seventy-fifth Session
78	Of the Seventy-sixth Session
79	Of the Seventy-seventh Session
80	Of the Seventy-eighth Session
81	Of the Seventy-ninth Session
82	Of the Eightieth Session
83	Of the Eighty-first Session
84	Of the Eighty-second Session
85	Of the Eighty-third Session
86	Of the Eighty-fourth Session
87	Of the Eighty-fifth Session
88	Of the Eighty-sixth Session
89	Of the Eighty-seventh Session
90	Of the Eighty-eighth Session
91	Of the Eighty-ninth Session
92	Of the Ninetieth Session
93	Of the Ninety-first Session
94	Of the Ninety-second Session
95	Of the Ninety-third Session
96	Of the Ninety-fourth Session
97	Of the Ninety-fifth Session
98	Of the Ninety-sixth Session
99	Of the Ninety-seventh Session
100	Of the Ninety-eighth Session
101	Of the Ninety-ninth Session
102	Of the Tenth Session

THE END



 The *Dentilave Tincture* here recommended as a Cure for the Tooth-Ache, and Scurvy in the Gums, and for fastening and preserving the Teeth, Price 2s. 6d. the Bottle; as also the *Dentifrice* for cleaning and beautifying the Teeth, without impairing the Enamel, Price 1s. the Box; are sold Wholesale and Retail, by the *Proprietor*, at No. 14, Hollen-Street, near Wardour-Street, Soho; and by the following Persons, viz. *J. Southern*, Bookseller, opposite Park-Place, St. James's - Street; *J. Harrison*, Printer, No. 18, Paternoster-Row, Cheapside; at the *Essex Coffee-House*, Whitechapel; and by the following Persons in the Country: viz. *Crutwell*, Bath; *Frost*, Chelmsford; *Pugh*, Hereford; *Shave*, Ipswich; *Slack*, Newcastle; *Chase*, Norwich; by a Bookseller in every Market-Town in England; by *Patrick Higley*, Bookseller, in Henry-Street, Dublin; and by *George Reid*, Printer, in Edinburgh.



The following is a list of the names of the persons who have been appointed to the various offices of the County of ...

